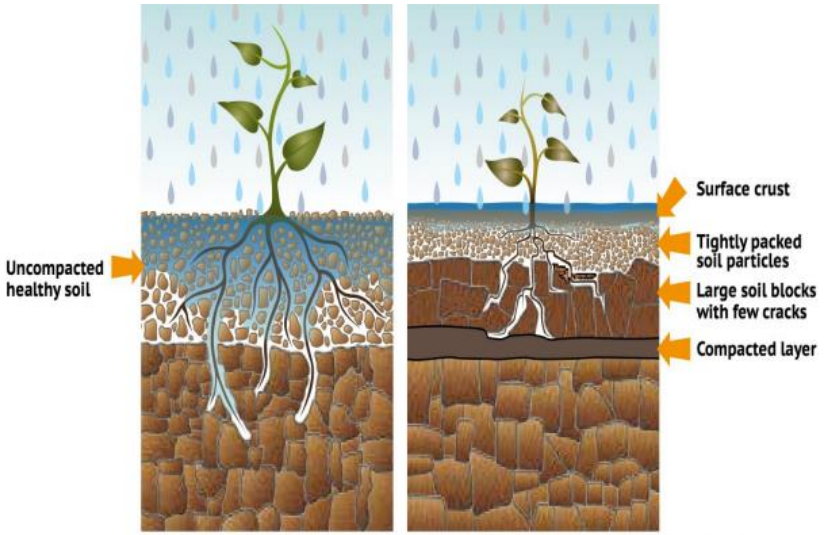
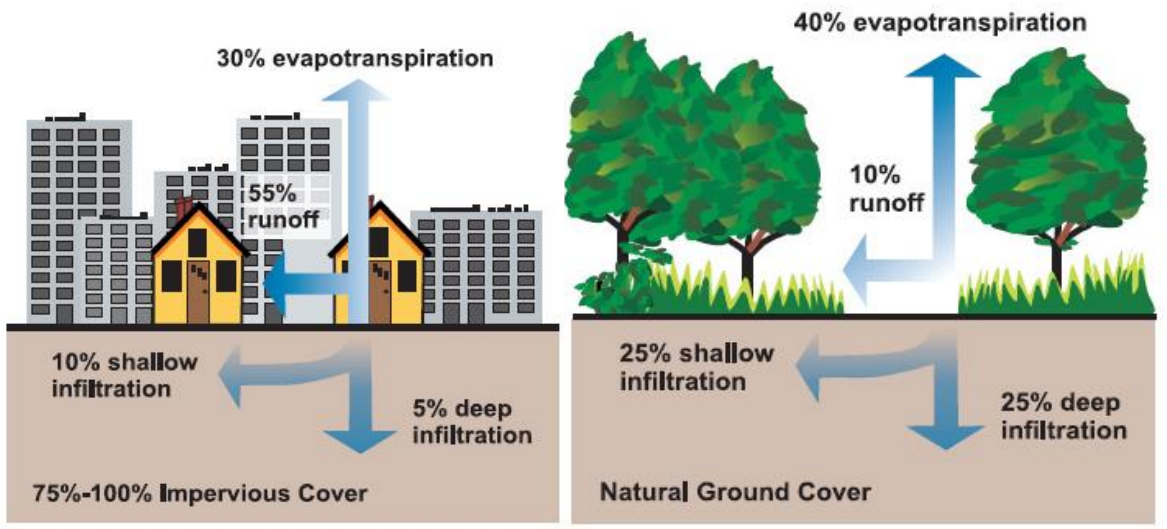


'Natural Flood Management Handbook, SEPA, 2015

Adapting to Climate Change



Interreg
2 Seas Mers Zeeën
Co-Adapt
European Regional Development Fund

Co-Adapt

Climate Adaptation through co-creation

- 12 partners in 4 countries
- Co-Adapt has received €7 million from the Interreg 2 Seas programme 2014-2020 and is part funded by the European Regional Development Fund
- SCC lead partner

- **Adapting The Levels – SWT, SCC & FWAG SouthWest**
- **Match funding thanks to Somerset Rivers Authority**

Somerset Rivers Authority

The wildlife TRUSTS SOMERSET

FWAG SouthWest

SOMERSET County Council

Interreg
EUROPEAN UNION
2 Seas Mers Zeeën
European Regional Development Fund

Mitigation

Actions which limit long-term global warming by reducing greenhouse gas emissions, and/or increasing the capacity of carbon sinks, e.g., through reforestation or peatland restoration.

Adaptation:

The process of adjusting to become more suited to an environment.....

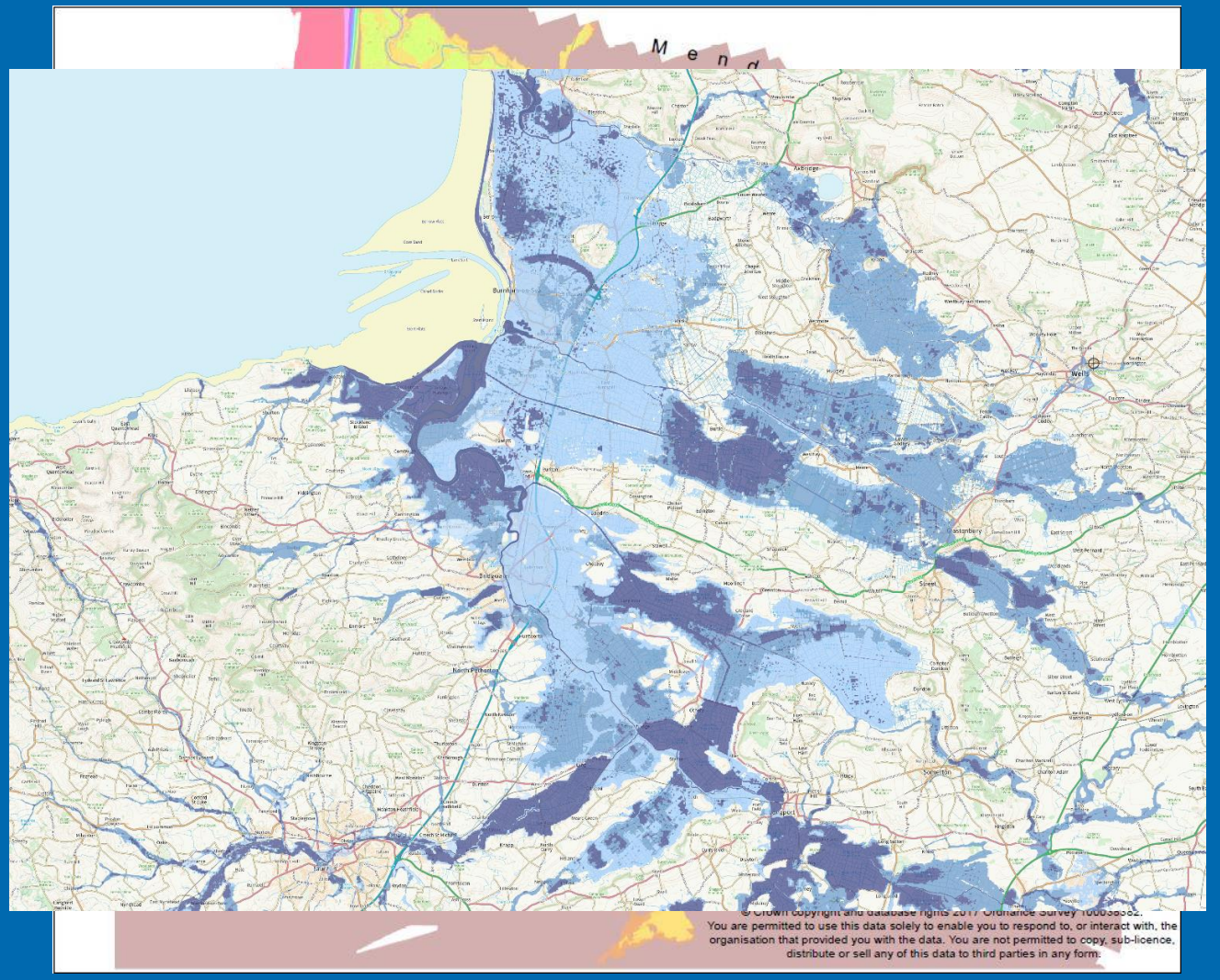
Climate Change Adaptation:

Adjust to the current levels of climate change or plan for those which are projected.

Adaptation can seek to moderate or avoid harm, or exploit beneficial opportunities.

Somerset - the frontline of climate change in the UK

- Long coastline
- Large area of low-lying land
- Sparsely populated



Somerset Impacts

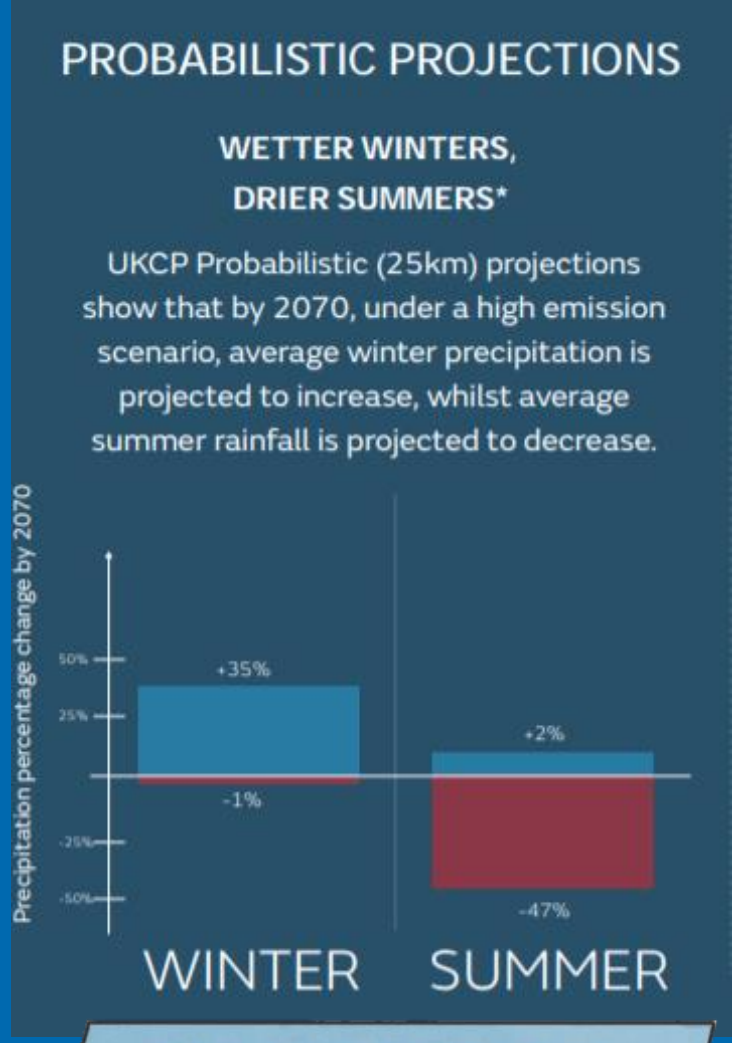
- Sea level rise
  - 0.27 – 1.23m by 2100

Somerset Impacts

- Sea level rise
  - 0.27 – 1.23m by 2100
- River flooding
  - 40-85% increase in peak flows

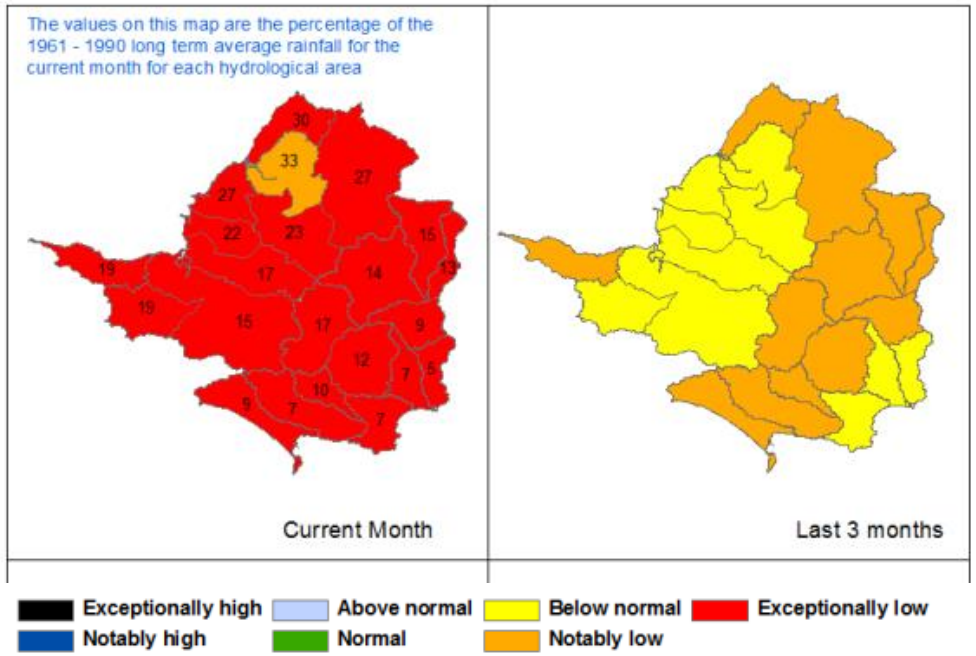
Somerset Impacts

- Sea level rise
  - 0.27 – 1.23m by 2100
- River flooding
  - 40-85% increase in peak flows
- Surface water flooding
  - Wetter winters: 35% more rain
  - More intense rainfall events



Somerset Impacts

- Sea level rise
  - 0.27 – 1.23m by 2100
- River flooding
  - 40-85% increase in peak flows
- Surface water flooding
  - Wetter winters: 35% more rain
  - More intense rainfall events
- Heat and drought
  - 47% drier summers, recent 40^{O}C experienced in UK



Somerset Impacts

- Sea level rise
  - 0.27 – 1.23m by 2100
- River flooding
  - 40-85% increase in peak flows
- Surface water flooding
  - Wetter winters: 35% more rain
  - More intense rainfall events
- Heat and drought
  - 47% drier summers, recent 40°C experienced in UK
- Wildfire
  - Summer risk doubles by 2050

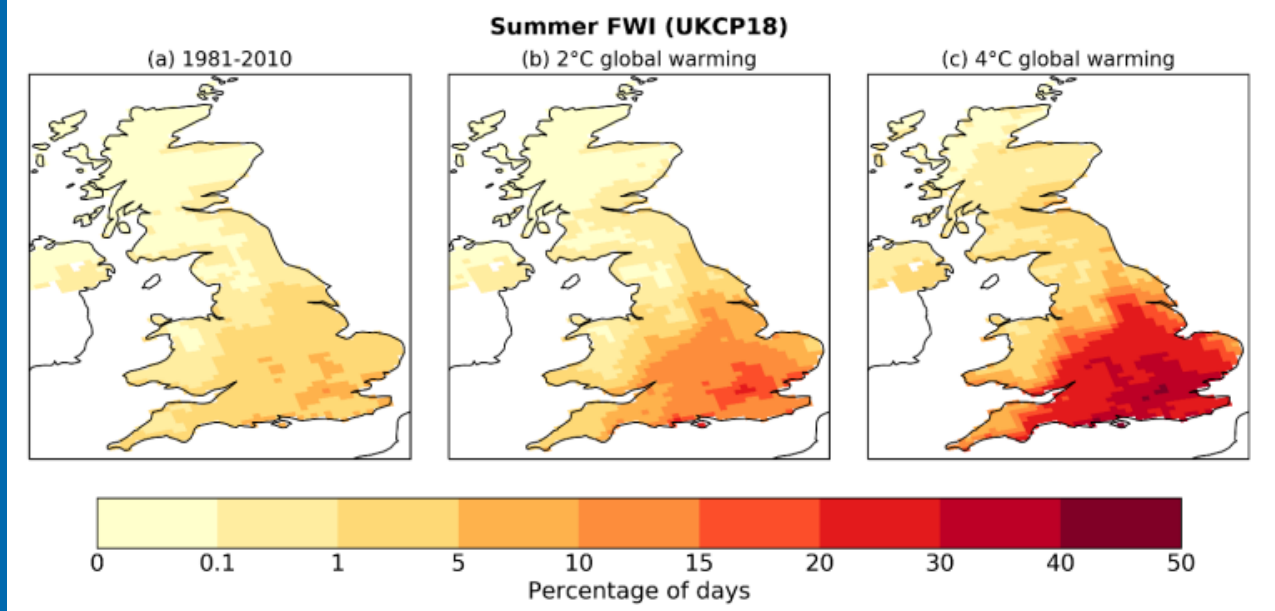
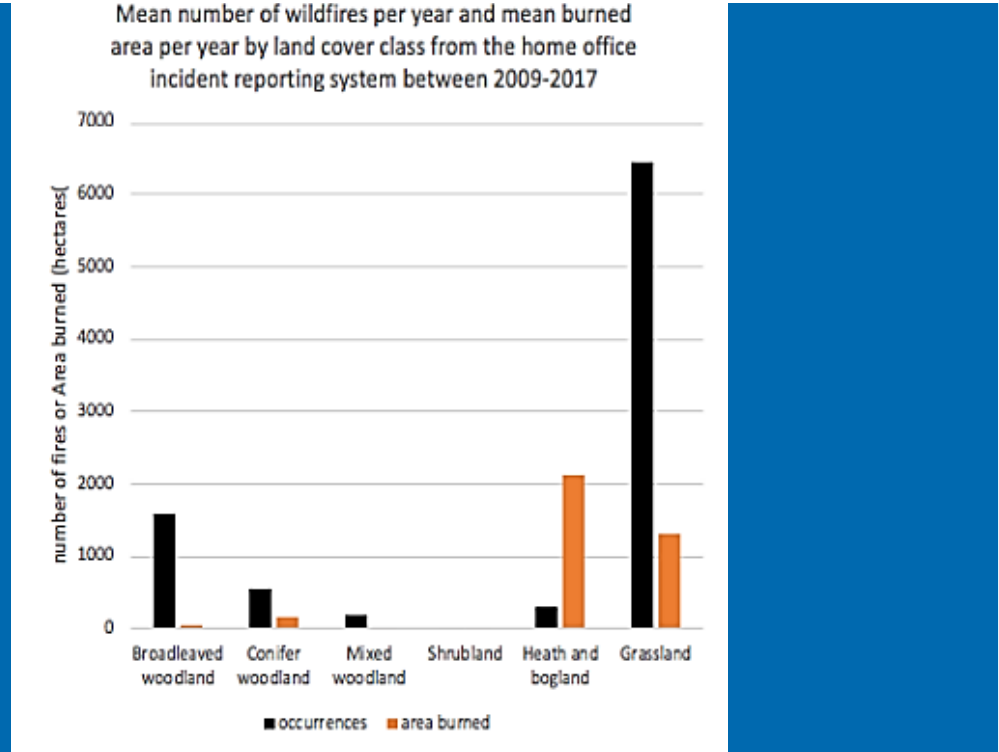


Figure 10: Percentage of summer days with 'very high' fire danger (FWI > 17.35), based on the UKCP18 12 km data averaged over the 12 ensemble members. a) Historical period (1981–2010), b) 2°C global warming, c) 4°C global warming.



How can we adapt?

Communities Prepared

Template Version 1.0

For further tips and advice on creating a Community Emergency Plan visit:
www.SomersetPrepared.org.uk

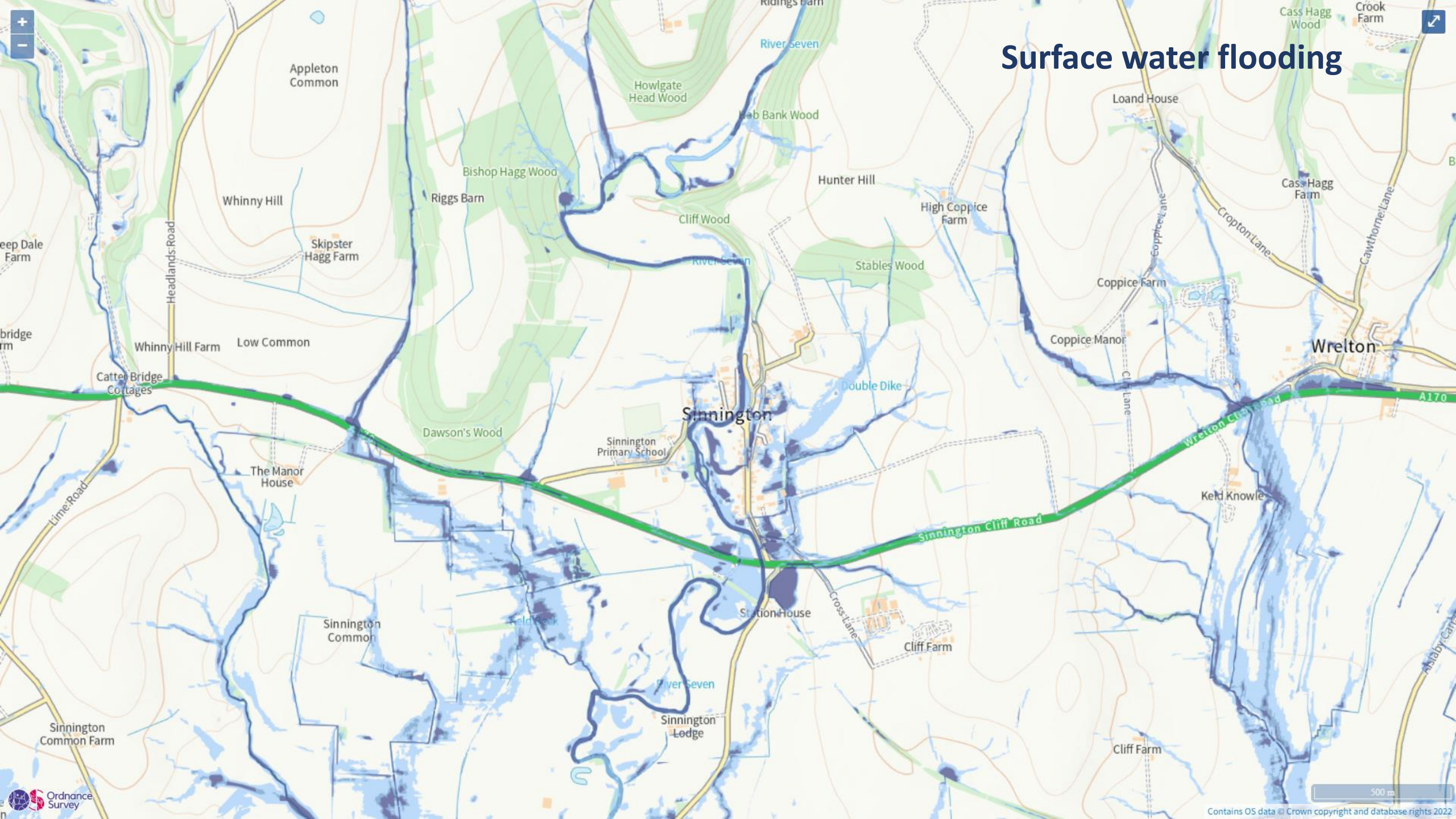
Community Name:	

Community Emergency Plan

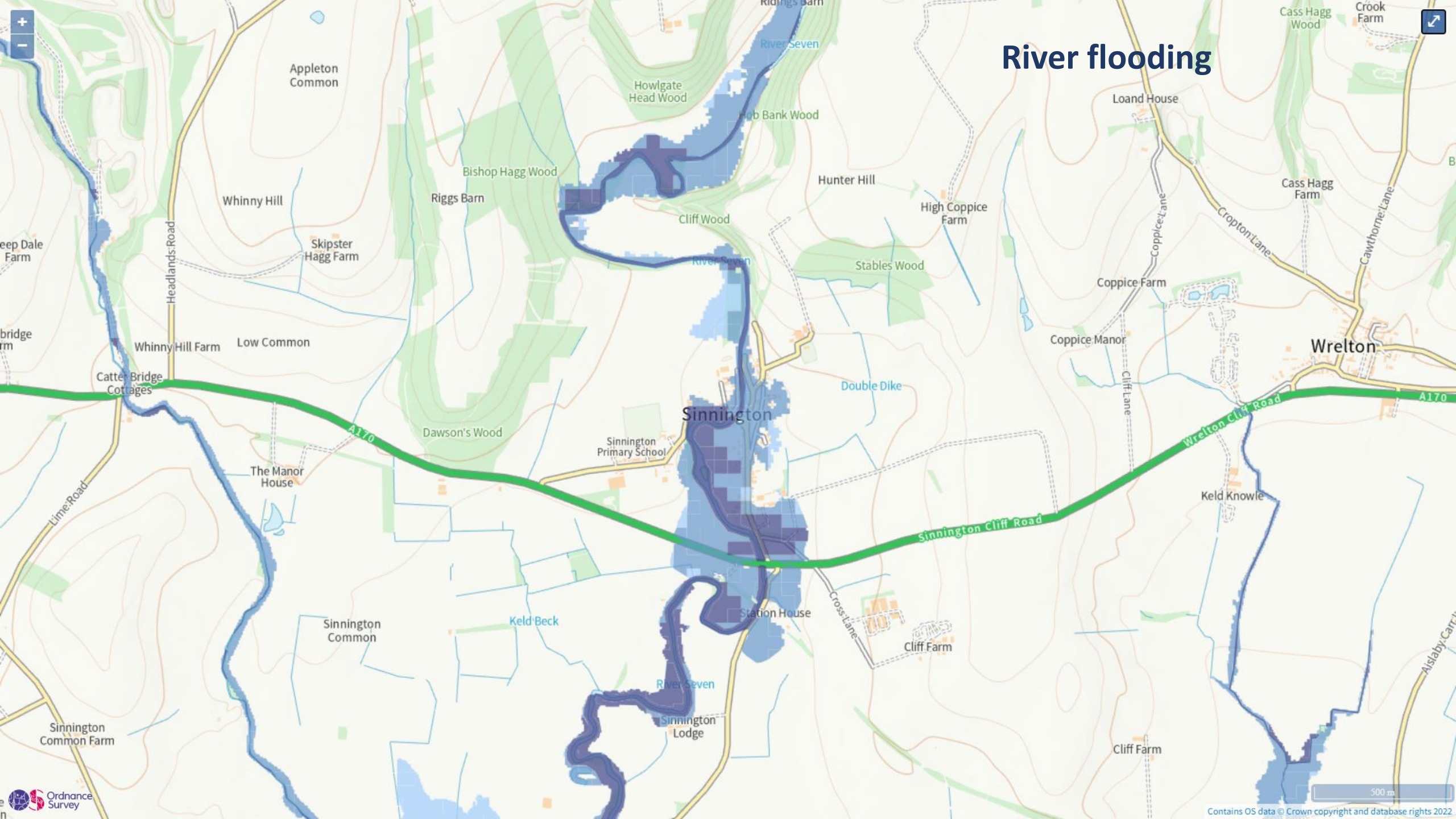
Activation	First Steps Action Card available on the reverse
Ownership	
Address	
Post Code	Borough / District

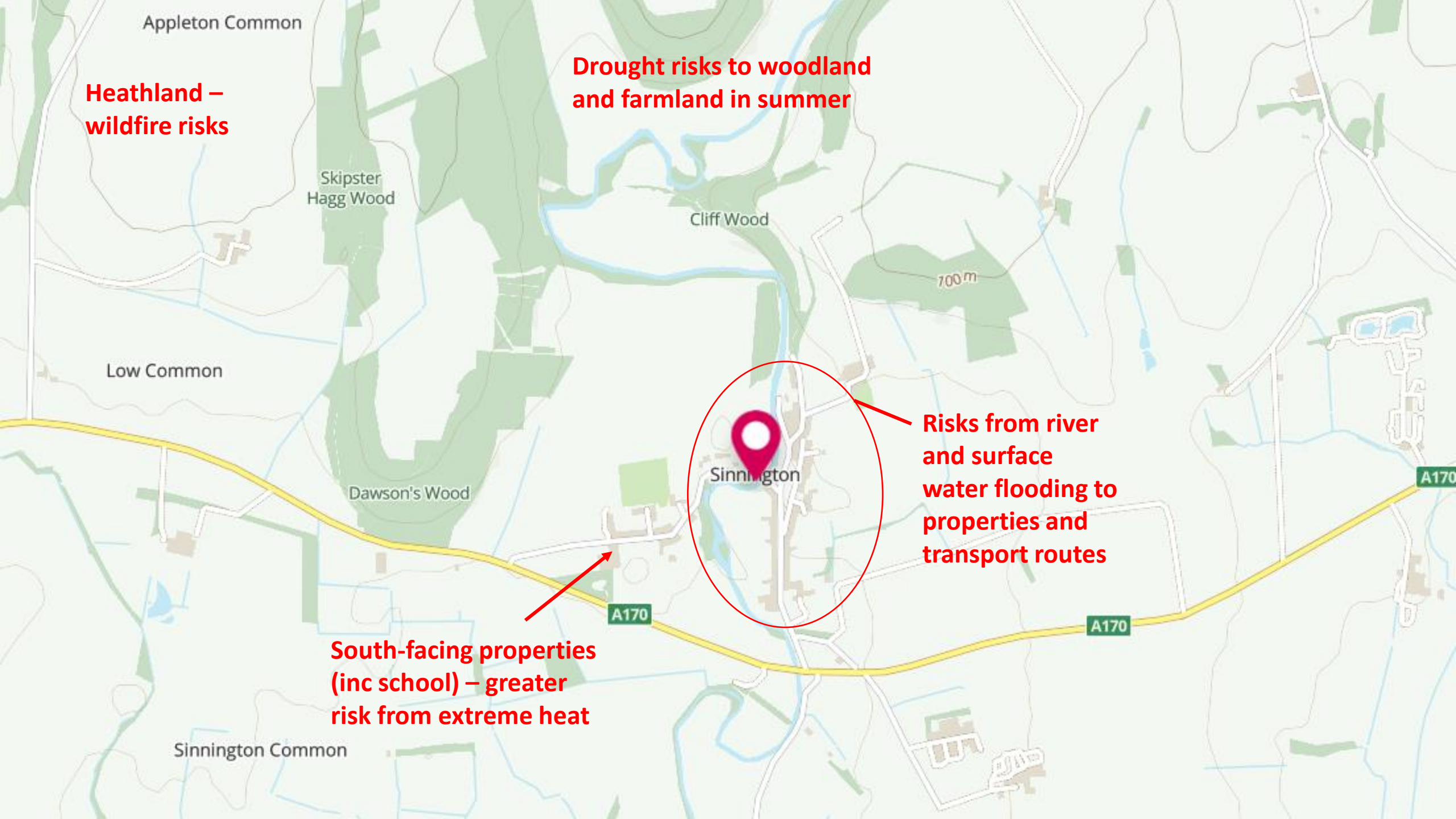
Case study: Sinnington

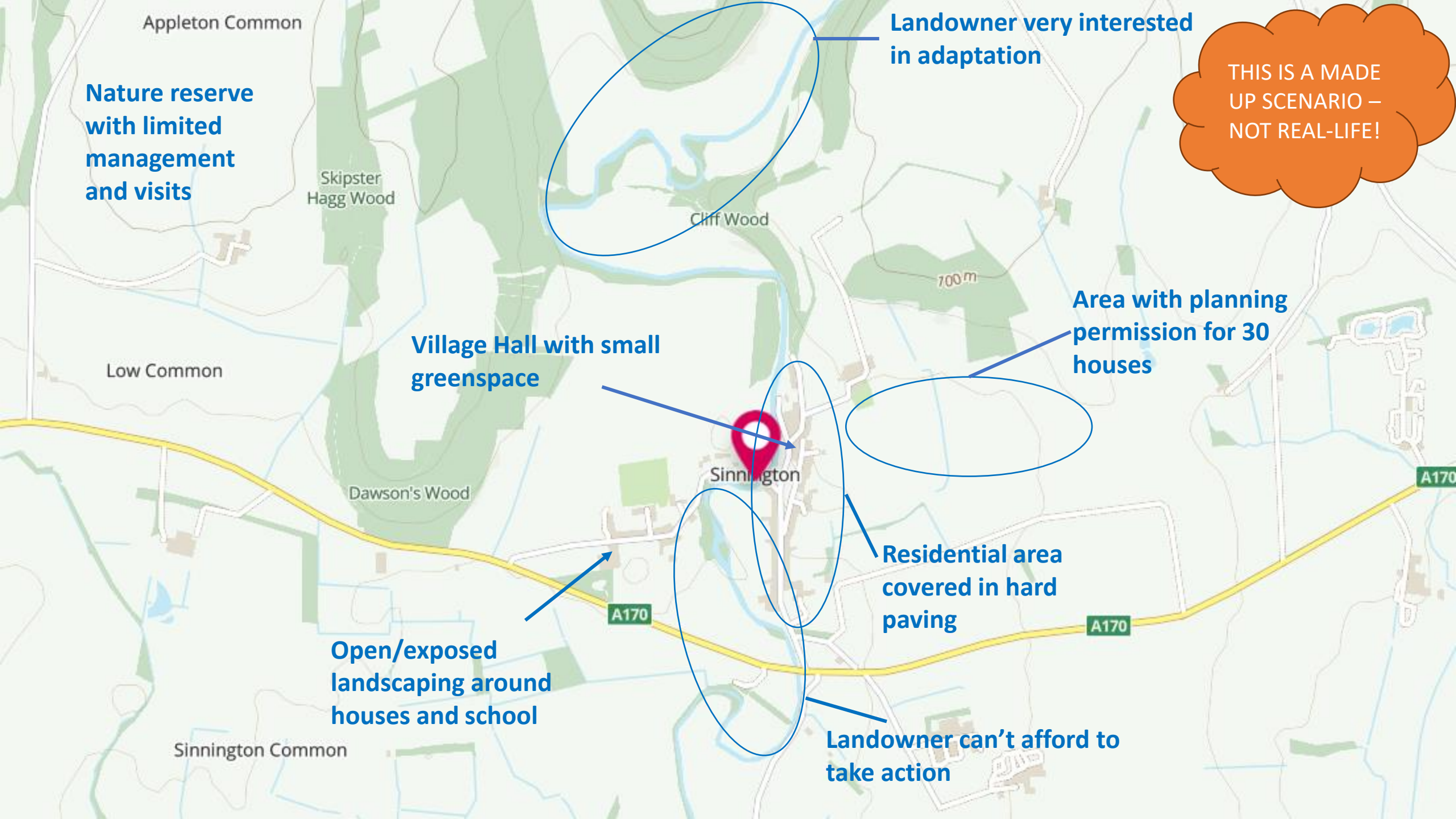
Surface water flooding



River flooding




Appleton Common
Heathland – wildfire risks
Drought risks to woodland and farmland in summer
Skipster Hagg Wood
Cliff Wood
100 m
Low Common
Dawson's Wood
Sinnington
Risks from river and surface water flooding to properties and transport routes
A170
A170
A170
South-facing properties (inc school) – greater risk from extreme heat
Sinnington Common


Appleton Common
Nature reserve with limited management and visits
Skipster Hagg Wood
Cliff Wood
Landowner very interested in adaptation
THIS IS A MADE UP SCENARIO – NOT REAL-LIFE!
700 m
Area with planning permission for 30 houses
Village Hall with small greenspace
Low Common
Dawson's Wood
Sinnington
A170
A170
A170
Residential area covered in hard paving
Open/exposed landscaping around houses and school
Sinnington Common
Landowner can't afford to take action

Workshop

- Discuss the Sinnington scenario amongst your group
- What climate impacts do you think are most pressing/concerning?
- What opportunities are there to take action? What adaptations would you implement?
- Money's no object!
- Be as inventive as you like!
- Fill in the mind map document, and annotate the plain map

Feedback

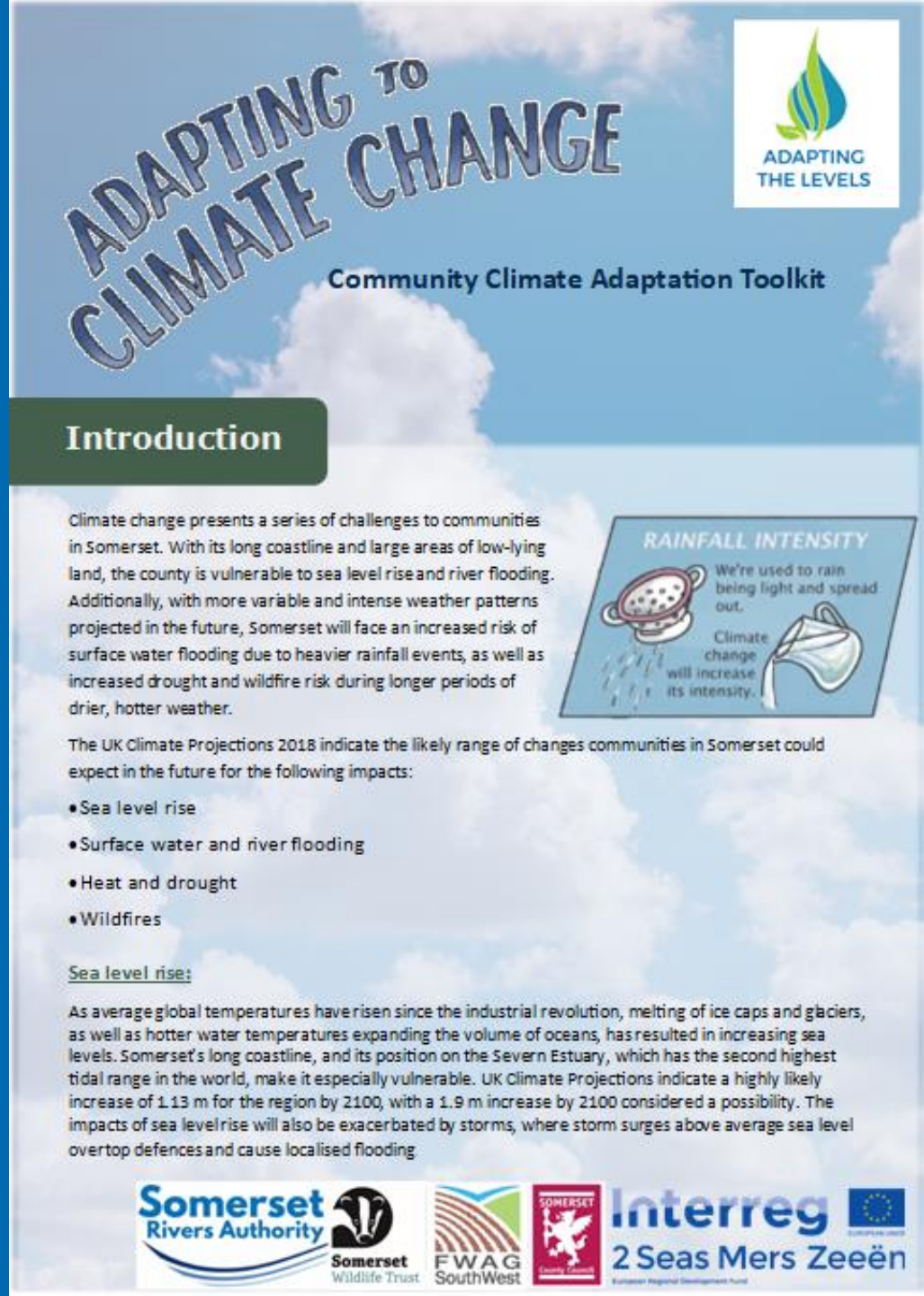
- Each group: summarise discussion, share one adaptation action you would take in Sinnington

- Everyone: Please write on a post-it note:

    1. What climate impact you are most concerned about in your local area
    2. What adaptation action you are most excited by/would like to see implemented in your community

What next?

- Talk about climate risks in your area and what your community could do to adapt
- Community Climate Adaptation Toolkit
- Team Wilder




Any questions?
Get in touch:
jack.bedford@somersetwildlife.org